

IN THE CLAIMS ADD

Please add claims 12-35 as follows:

AI 12. (New) A method for transmitting digitized audio data from a first wireless device to a second wireless device using a wireless communications link implementing a packet-based communications protocol, the protocol providing for a data packet structure having a payload that is based upon audio data typically encoded at a first bitrate, the method comprising the steps of:

sub-P encoding the digitized audio data at a second bitrate, whereby the second bitrate is lower than the first bitrate;

generating an error detection code derived from the digitized audio data;

forming a data packet with modified payload information comprised of the audio data encoded at the second bitrate and the error detection code;

transmitting the data packet via the wireless communications link.

13. (New) The method of claim 12, in which the wireless communications link is a synchronous connection-oriented link.

14. (New) The method of claim 12, in which the first bitrate is approximately 64 kilohertz and the second bitrate is approximately 32 kilohertz.

15. (New) The method of claim 12, in which the step of encoding the digitized audio data at a second bitrate is further comprised of the step of encoding the digitized audio data in an ADPCM format.

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16. (New) The method of claim 12, in which the step of forming a data packet further comprises the substep of forming a data packet having the structure of a BLUETOOTH HV3 packet containing the modified payload information.

CONT
17. (New) The method of claim 12, further comprising the steps of:

extracting the encoded payload from the data packet by the second wireless device;

detecting that the encoded audio data was received without errors by implementing an error detection protocol associated with the error detection code.

18. (New) The method of claim 12, which method further includes the preceding step of:

determining that the second wireless device is capable of communicating using a packet structure other than that defined by the communications protocol.

19. (New) The method of claim 12, which method further includes the preceding step of:

determining that the second wireless device is capable of communicating using a non-standard link that is derived from a BLUETOOTH Synchronous Connection-Oriented communications link.

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20. (New) The method of claim 18, in which the step of determining that the second device is capable of communicating using a packet structure other than that defined by the communications protocol further comprises the substep of utilizing the BLUETOOTH Service Discovery Protocol to determine whether the second device is capable of communicating using a proprietary packet format.

CONT
21. (New) The method of claim 20, in which the proprietary packet format includes payload comprised of digitized audio information encoded at the second bitrate and an error detection code derived from the digitized audio information.

22. (New) The method of claim 12, in which the modified payload information is further comprised of information indicative of the encoding technique employed in the step of encoding the digitized audio data.

23. (New) The method of claim 12, in which the modified payload information is further comprised of an auxiliary data field containing information that is not representative of an audio signal.

24. (New) The method of claim 23, in which the auxiliary data field contains telephone caller identification information.

sub-P2
25. (New) A method of forming a data packet for the transmission of a digital audio signal using a packet-based synchronous connection-oriented communication link, which

AI link is capable of transmitting audio data typically encoded at a first bitrate within payload portions of a plurality of data packets, the method comprising the steps of:

encoding the digital audio signal at a second bitrate, where the second bitrate is lower than the first bitrate;

generating an error detection field derived from the digital audio signal;

CONT forming the data packet with the payload portion comprising the digital audio signal encoded at the second bitrate and the error detection field.

sub B6
cont 26. (New) A method for transmitting a digitally encoded audio signal from a first wireless device having a transmitter to a second wireless device via an asynchronous connectionless link, which method comprises the steps of:

receiving a first portion of encoded audio signal at the transmitter of the first wireless device;

generating an error detection code derived from the first portion of encoded audio signal;

generating a data packet having a payload comprised of the first portion of encoded audio signal and the error detection code;

transmitting the data packet from the first device to the second device via the asynchronous connectionless link;

flushing the asynchronous connectionless link approximately when the first device transmitter receives a second portion of encoded audio signal for transmission to the second wireless device.

27. (New) The method of claim 26, in which the data packet has the structure of a BLUETOOTH DM3 packet containing the payload.

28. (New) The method of claim 26, which method further comprises the steps of:

extracting the payload from the data packet by the second wireless device;

detecting whether the payload received contains errors by implementing an error detection protocol using the error detection code received within the payload;

generating an analog audio signal by the second device when the payload received does not contain errors, the analog audio signal being derived from the first portion of encoded audio signal;

discarding the first portion of encoded audio signal by the second device when the payload received contains errors.

29. (New) The method of claim 26, in which the step of transmitting the data packet is comprised of the substep of repeatedly retransmitting the data packet by the first device unless and until an acknowledge signal is received from the second device indicating the audio signal has been received without error, or the asynchronous connectionless link is flushed.

30. (New) The method of claim 26, in which the data packet is further comprised of information indicative of the technique with which the first portion of encoded audio signal is encoded.

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31. (New) The method of claim 26, in which the data packet is further comprised of an auxiliary data field containing information that is not representative of an audio signal.

32. (New) The method of claim 31, in which the auxiliary data field contains telephone caller identification information.

CONT
33. (New) A method for communicating a digitally encoded audio signal from a first wireless device to a second wireless device via a wireless communications link, which method comprises the steps of:

sub-B3 receiving a first portion of an encoded audio signal comprised of a plurality of data subsets by the first wireless device;

generating an error detection code derived from the received encoded audio signal which independently protects each one of a plurality of data subsets within the first portion of encoded audio signal;

generating a data packet comprised of the first portion of encoded audio signal and the error detection code;

transmitting the data packet from the first device to the second device via the wireless communications link;

determining for each of the plurality of data subsets whether the data subset was received with uncorrectable errors using the error detection code;

discarding only the contents of each data subset received with uncorrectable errors.

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34. (New) The method of claim 33, in which the communications link is an asynchronous connectionless link, the method further comprising the step of:

flushing the asynchronous connectionless link approximately when the first device receives a second portion of encoded audio signal for transmission.

CONT

35. (New) An apparatus for transmitting digitized audio data from a first wireless device to a second wireless device using a packet-based wireless communications protocol, which apparatus is comprised of:

a digital audio encoder disposed within the first wireless device capable of generating the digitized audio data using one of at least a first and second encoding algorithm, where the first encoding algorithm encodes data at a first bitrate, and the second encoding algorithm encodes data at a second bitrate, where the second bitrate is lower than the first bitrate;

a first link manager associated with the first wireless device which processes the digitized audio data to generate a data packet payload, where the operation of the link manager depends upon the encoding algorithm implemented by the digital audio encoder, which link manager generates error detection data derived from the digitized audio data and associates the error detection data with the digitized audio data when the digital audio encoder implements the second encoding algorithm, such that the cumulative length of the error detection data and the digitized audio data encoded when using the second encoding algorithm is less than or equal to the length of the audio data had it been encoded using the first encoding algorithm;